10th Class 2020

Math (Science)	Group-II	PAPER-II
Time: 20 Minutes	(Objective Type)	Max. Marks: 15

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1- The solution set of equation $4x^2 - 16 = 0$ is:

(a) $\{\pm 4\}$ (b) $\{4\}$

(c) $\{\pm 2\}$ √ (d) ± 2

2- If α, β are the roots of $7x^2 - x + 4 = 0$, then $\alpha\beta$ is:

(a) $\frac{-1}{7}$ (b) $\frac{4}{7}$ √

(c) $\frac{7}{4}$ (d) $\frac{-4}{7}$

3- Two square roots of unity are:

(a) 1, –1 √ (b) 1, ω

(c) 1, –ω (d) ω, ω^2

4- Find x in proportion 4 : x : : 5 : 15:

(a) $\frac{75}{4}$ (b) $\frac{4}{3}$

(c) $\frac{3}{4}$ (d) 12 √

5- If a : b = x : y, then invertendo property is:

(a) $\frac{a}{x} = \frac{b}{y}$ (b) $\frac{a}{a-b} = \frac{x}{x-y}$

(c) $\frac{a+b}{b}$ (d) $\frac{b}{a} = \frac{y}{x}$ √

6- $\frac{x^3 + 1}{(x-1)(x+2)}$ is ----- .

(a) A proper fraction (b) An improper fraction √

(c) An identity (d) A constant term

7- The set $\{x \mid x \in W \wedge x \leq 101\}$ is:

(a) Infinite set (b) Subset

(c) Null set (d) Finite set √

8- If A and B are disjoint sets, then $A \cup B$ is equal to:

(a) A (b) B

(c) ϕ (d) $B \cup A$ √

9- A histogram is a set of adjacent:

(a) Squares (b) Rectangles √

(c) Circles (d) Triangles

10- The extent of variation between two extreme observations of a data set is measured by:

(a) Average (b) Range √

(c) Quartile (d) Domain

11- $\frac{3\pi}{4}$ radians = :

(a) 115° (b) 135° √

(c) 150° (d) 30°

12- A chord passing through the centre of a circle is called:

(a) Radius (b) Diameter √

(c) Circumference (d) Secant

13- A line which has only one point in common with a circle is called:

(a) Sine of a circle (b) Cosine of a circle

(c) Tangent of a circle √ (d) Secant of a circle

14- A pair of chords of a circle subtending two congruent central angles is:

(a) Congruent √ (b) Incongruent

(c) Overlapping (d) Parallel

15- Angle inscribed in a semicircle is:

(a) $\frac{\pi}{2}$ √ (b) $\frac{\pi}{3}$

(c) $\frac{\pi}{4}$ (d) $\frac{\pi}{5}$